

## PUBLIC SAFETY

# Nuclear Test Ban Issues

► THE ISSUES were political, not scientific, when the Soviet Union resumed nuclear test ban talks with the United States and Great Britain, Ambassador James J. Wadsworth, this country's former senior delegate to the disarmament talks at Geneva, told SCIENCE SERVICE.

"Scientific opinion, both East and West, has for some time been in accord on the technical questions such as the number and placement of control posts for detection of all tests in the atmosphere, including high altitude tests in space," he said. "Controversy has been primarily over the selection of enforcement personnel to man the control posts as well as selection of an administrator for the entire enforcement operation."

At the beginning of the nuclear test ban talks three years ago the Russians insisted that only they man the monitoring stations within the Soviet Union. The West dismissed self-monitoring by either side as ineffective and took the initiative in proposing that Soviet personnel monitor Western posts while U. S. and British scientists and technicians man the Soviet stations.

The Soviets countered with a Troika proposal, requiring that Soviet, Western and neutral observers man each station, with the network also administered by a three-member group, each with a veto power.

A compromise offer by the United States together with an expression of willingness to ban all bomb tests, both large and small, was in Soviet hands when they abruptly terminated negotiations and announced their intention to launch the recent series of test explosions.

In accepting the Western offer to resume test ban negotiations, the Soviets said that if any power conducted nuclear tests during negotiations, the Soviets would keep

on testing. The Soviets justified their resumption of tests in September on the fact that the French, not included in the nuclear test ban talks, had tested in the Sahara while negotiations were taking place.

In inviting Russia to resume negotiations for a test ban treaty with the United States and Britain, President Kennedy stated clearly that the United States reserved the right to undertake tests if it is necessary for national and free world security.

"Testing by the United States now is not in the national interest," Ambassador Wadsworth said. "It is not necessary on a military basis. What is necessary is that we be prepared always to look for ways to improve the situation. It is, therefore, to our national interest to keep seeking ways to reduce world tensions."

The primary aim in future negotiations with the Soviets should be to achieve an agreement that minimizes the risk of cheating, he said. "While we should not make a fetish of controls, neither should we assume unreasonable risks to get a signed agreement that is not workable."

Any agreement would become meaningless if Red China should develop an atomic bomb and start testing. Despite this possibility, he favors continued negotiations. "Talking cannot do us any harm. It might do us good."

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## TECHNOLOGY

## Old Wins Over New in Reclaiming Desert Lands

► ANCIENT METHODS have proved superior to modern technology in reclaiming arid lands.

This is particularly true in underdevel-

oped nations where nearly all arid land in the world is concentrated. Here, there is a maximum of unskilled manpower and a minimum of technical tools and technologists, Dr. Luna B. Leopold, chief hydrologist of the U.S. Geological Survey and member of the United Nations Educational, Scientific and Cultural Organization (UNESCO) advisory committee on arid zones, explained in Washington, D. C.

Such ancient practices under scientific guidance are proving highly successful in various African and Asian countries.

In Israel, waters from the flash floods that seasonally occur on the dry, barren desert in the Negev are being effectively held back by small handmade terraces.

According to history, this method of flood control was used in Biblical times when this area was lush and productive.

Such small scale reclamation programs are an adaptation to nature rather than an attempt to drastically modify the environment. This may eventually prove to be more productive, Dr. Leopold said. Such methods are, of course, unsuitable for nations with a highly advanced technology such as the United States.

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## ROCKETS AND MISSILES

## Give Atomic Bombs to U. N., Scientist Advises

► THE UNITED STATES should offer now to give, lock, stock and barrel, its entire nuclear armament, including all means of delivery and information about impending attack, to the United Nations, Dr. Maurice B. Visscher, professor of physiology at the University of Minnesota Medical School, Minneapolis, proposed in a speech in that city.

This bold step would, in Dr. Visscher's judgment, be a deterrent to world war because it would remove any possible military advantage that a potential enemy such as the USSR would have in destroying the population centers of the United States.

Safe-guarding conditions before turning over atomic bombs to the U. N., proposed by Dr. Visscher, include:

1. Any country possessing nuclear weapons that refused to do the same as the United States would not be allowed full membership in the U. N. or have a vote on policy decisions.

2. Voting strength in the U. N. would be related to numbers of literate citizens in any country.

3. The U. N. nuclear arsenal would be in uninhabited territory or mobile in submarines, on land and in the air.

4. Such bases would be controlled by the U. N. and manned by directly recruited U. N. forces and not forces assigned by any country.

"There is no hope for long-term survival unless the people reassert their rights to know, think and be heard," Dr. Visscher said. "We will survive if an informed citizenry is allowed to decide and bestir itself."

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DESERT FIELD—An experimental field in the Morocco desert.